

THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

STAFF REPORT

of the

ACCOUNTING DEPARTMENT

and

UTILITIES DEPARTMENT

DOCKET NO. 96-001-E

CAROLINA POWER & LIGHT COMPANY

Department



REPORT OF ACCOUNTING DEPARTMENT

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ANALYSIS

The Accounting Department Staff has made an examination of the books and records of Carolina Power and Light Company (hereinafter referred to as "the Company") relative to the Commission's requirement under Docket No. 96-001-E, that periodic hearings be conducted before the Commission concerning the Adjustment of Base Rates for Fuel Costs.

The current investigation of the Company's Retail Fuel Adjustment Clause covered the period July 1995 through March 1996. Since the current hearing is scheduled for March 1996, Staff's audit consisted of actual fuel costs for the period July 1995 through December 1995 and projected fuel costs for January, February and March 1996. Staff's computation of the Deferred Fuel Entries (Exhibit G) for the months of January, February and March 1996 were estimated for the purpose of adjusting base rates effective April 1, 1996. The January, February and March 1996 estimates will be trued-up in the Company's next hearing.

The Accounting Department Staff's examination consisted of the following:

1. Analysis of the Fuel Stock Account, Account # 151
2. Sample of Receipts to the Fuel Stock Account (Acct.# 151)

3. Verification of Charges to Nuclear Fuel Expense, Account # 518
4. Analysis of Purchased Power and Interchange (Net)
5. Verification of KWH Sales
6. Comparison of Coal Costs
7. Recomputation of Fuel Costs Adjustment Factor and Verification of Unbilled Revenue
8. Recomputation of True-Up for Over/Under-Recovered Fuel Costs
9. Analysis of Spot Coal Purchasing Procedures

ANALYSIS OF FUEL STOCK ACCOUNT, ACCOUNT # 151

Staff's analysis of the Fuel Stock Account consisted of tracing receipts to and issues from the fuel management system to the General Ledger, reviewing monthly journal entries originating in fuel accounting, and ensuring that only proper charges are entered in the Company's computation of fuel costs for purposes of adjusting base rates for fuel costs.

SAMPLE OF RECEIPTS TO THE FUEL STOCK ACCOUNT, ACCOUNT #151

Staff's sample of receipts to the Fuel Stock Account consisted of randomly selecting transactions, tracing each of these transactions to a waybill and a purchase order for documentation purposes, and recalculating the transactions to insure mathematical correctness.

VERIFICATION OF NUCLEAR FUEL EXPENSE, ACCOUNT # 518

Staff verified expense amounts to the Company's General Ledger. The expenses were also verified to the monthly fuel reports filed by the Company with this Commission.

ANALYSIS OF PURCHASED POWER AND INTERCHANGE (NET)

Staff performed an examination of the Company's purchased power and interchange (net) amount used in the Fuel Adjustment Clause (FAC) for the period July 1995 through December 1995.

Staff obtained the detail of the purchases and sales made by Carolina Power and Light Company to and from other electric utilities. Staff verified the amounts which are being used in computing total fuel costs for each month. This detail allowed the Staff to identify all fuel costs which are being passed through the clause in computing the factor above or below base for each period. See Staff's Exhibit F for details.

Furthermore, in accordance with PSC Order No. 90-961, Docket No. 90-4-E, dated October 18, 1990, Staff was specifically directed to examine the Company's nonfirm, off-system sales to preclude any possible problems in this area and to include language in its audit procedures to address these matters. Accordingly, Staff chose two test months, July and August 1995, to examine the sales and purchases processes virtually from beginning to end, especially on Economy A and B type transactions. For Economy A transactions, the Company begins the process by determining what the fuel costs would be to use various units at the Company's various plants at

different points in time. The Company, by way of their system dispatchers, utilizes an ES (Economy Study) Computer Program that calculates the Company's best fuel cost available at any given hour. The program calculates the estimated average production cost in increments, as specified by the system dispatcher, of megawatt hours (MWH's) over the next hour. The fuel costs that are used in this computerized program for the economic dispatch of system generation and economy sales are compiled from various data. The fuel costs for coal, gas, and propane, on a cents per MBTU basis, are based on the current month's anticipated spot market prices, that is, the replacement cost of fuel. The fuel costs for the Company's stockpile, on a cents per MBTU basis, are based on the latest available Fuel Management System Coal Inventory Report. It should be noted that the stockpile fuel costs are compiled for information purposes and are not used in the ES Computer Program. The fuel costs for No. 2 Oil, on a dollars per gallon basis, are based on current delivered prices. The compilation of these fuel costs may be revised several times within a month, based on updated information.

For Economy A purchases, the system dispatcher, in his decision-making process, uses not only the ES Computer Program, but other computer information as well. One of the system dispatcher's computer terminals displays the system's current generation Lambda. The current generation Lambda is the estimated system cost of the very next megawatt at that point in time. When the system dispatchers are purchasing power, these various costs are

considered.

The system dispatcher, when making a sale, in some cases will add a variable O & M charge to the ES-computed cost. This charge is included in the quoted selling price given to another company's system dispatcher. If the selling competitor's price is close to the Company's, then the Company may not add this charge.

Economy B transactions are not determined on an hourly basis, such as Economy A transactions, but rather are transactions based on a longer duration, such as a day-to-day basis. The system dispatchers, in their decision-making process for Economy B purchases and sales, utilizes a computer program called a Unit Commitment Program. This program reflects prices based on CP&L's generating availability over a longer period of time.

The Company's system operations center, the Skaale Center, houses a computer terminal system called VACAR (Virginia - Carolinas) Net. VACAR Net simultaneously records and displays five (5) major electric utilities' projected hourly amounts of energy available for sale and the price of that energy on each of those utilities' VACAR Net computer terminals. The five (5) VACAR Net operating companies are Duke Power Company, CP&L, SCE&G, VEPCO, and SCPSA. Each of the five utilities can see what selling prices each company's system dispatchers are quoting over the telephone to them. This computer terminal system reduces the likelihood that a company's system dispatcher will quote another company's system dispatcher one selling price per telephone and then write down a higher selling price. Also, the conversations between company

system dispatchers are taped. At the end of each day, a confirmation letter is faxed to the companies that transacted business with CP&L that day. The agreed-on prices and the MWH's received or sent are verified. A monthly verification with each company that did business with CP&L is also faxed.

It should be noted that CP&L's system dispatchers are rotated frequently between various system operations duties.

Staff traced the sales and purchases transactions for July and August 1995 to the Company's typed Daily System Dispatch Sheets (the Company no longer does handwritten Daily System Dispatch Sheets) and to the monthly invoices. Staff recomputed all sales and purchases, including the split-the-savings costs of Economy A and B transactions.

In accordance with Public Service Commission Order No. 90-961, Docket No. 90-4-E, dated October 18, 1990, Staff will continue to review these types (nonfirm, off-system) of transactions during future audits.

VERIFICATION OF KWH SALES

The Accounting Department Staff reconciled the KWH sales as reported to the Commission through monthly fuel adjustment filings.

COMPARISON OF COAL COSTS

Staff prepared exhibits from Carolina Power and Light Company's books and records reflecting coal costs during the review period. Specifically, these exhibits are as follows:

Exhibit A - COAL COST STATISTICS

Exhibit B - RECEIVED COAL - COST PER TON (PER PLANT)

Exhibit C - RECEIVED COAL- COST PER TON COMPARISON

With reference to Exhibit A, Coal Cost Statistics, Staff has shown a detailed analysis of spot and contract coal for the six (6) months ended December 1995. Also, in Exhibit A, the Weighted Average of Coal Received is reflected for the six-month period. Total costs for the six-month period were divided by the total tons for the six-month period in arriving at the average.

In Exhibit B, Received Coal-Cost Per Ton (Per Plant), Staff reflects the overall cost per ton of coal by month per plant.

In Exhibit C, Received Coal- Cost Per Ton Comparison, Staff reflects the overall cost per ton of coal by month for the three major electric utilities regulated by this Commission.

RECOMPUTATION OF FUEL COSTS ADJUSTMENT FACTOR AND VERIFICATION OF UNBILLED REVENUES

Staff recomputed the Fuel Costs Adjustment Factor for the months of July 1995 through December 1995.

RECOMPUTATION OF TRUE-UP FOR OVER/ UNDER-RECOVERED FUEL COSTS

Staff analyzed the cumulative over-recovery of fuel costs the Company had incurred for the period July 1995 through December 1995 totaling \$356,149. Staff added the projected under-recovery of \$578,805 for the month of January 1996, the projected under-recovery of \$193,306 for the month of February 1996, and the

projected over-recovery of \$598,525 for the month of March 1996 to arrive at an cumulative over-recovery of \$182,563 as of March 1996. The Company's cumulative over-recovery as of March 1996, per its testimony in Docket No. 96-001-E, totals \$150,079. The difference between the Company's and the Staff's cumulative over-recovery totals \$32,484. This difference is based on Staff's correction (per Staff's report) of some miscalculated Purchased Power Costs for August 1995. The effect of the correction on the deferred fuel account, on a S.C. jurisdictional basis, reduced the under-recovery for August 1995 from \$1,221,374 (per the Company's books and records) to \$1,188,890, which resulted in a difference of \$32,484. The Company's correction of \$32,484 to the cumulative balance of the deferred account will be reflected in the Company's January 1996 per book figures.

As stated in Carolina Power and Light Company's S.C. Retail Adjustment for Fuel Costs Rider, fuel costs will be included in base rates to the extent determined reasonable and proper by the Commission for the succeeding six months or shorter period. Accordingly, the Commission should consider the over-recovery of \$182,563 along with the anticipated fuel costs for the period April 1, 1996 through September 30, 1996 for the purpose of determining the base cost of fuel in base rates effective April 1, 1996. The \$182,563 over-recovery figure was provided to the Commission's Utilities Department.

ANALYSIS OF SPOT COAL PURCHASING PROCEDURES

The Accounting Staff examined the procedure followed by the Company's Fossil Fuel Department for obtaining and accepting bids on spot coal. The Fossil Fuel Department maintains a list of coal vendors (suppliers) from whom bids are solicited monthly. Each month Carolina Power and Light Company's spot coal purchasing personnel mails each one of these coal vendors a Coal Quotation Form and letter requesting bids for the next month. In order for a coal vendor's name to be on this mailing list, the coal vendor must have completed the Supplier Capability Report and must possess the necessary financial, technical, and business resources to supply coal consistent with Carolina Power and Light Company's requirements.

The Coal Quotation Forms provide such information as the name of the coal company (the supplier), the name of the producer, the name of the mine, the number of tons offered, coal specifications, price per ton, the month the shipment will be made, mining methods of the producer and shipping transportation data. It should be noted that these Coal Quotation Forms, based on whether a coal vendor has any spot coal to sell, are sent to the Company every month regardless of whether or not the Company plans to purchase any spot coal for that month.

If the Company does decide to purchase spot coal in a given month, after reviewing their spot coal requirements for that month, then the bids received from the coal vendors are evaluated. The Company normally requires all bids to be made on Coal Quotation

Forms, but if bids are sent on forms other than the Company's, then the information is transferred from the other forms onto the Company's Coal Quotation Forms with the approval of the Project Fuel Specialist -Spot Coal Transportation and Distribution. For evaluation purposes, the spot coal quotations are compiled in a computerized quote file. Then a Coal Eval Program computer run, which statistically compiles the quotation data, is used by the Company to evaluate the quotations received and to adhere to sulfur limitations imposed by State and Federal regulations. The Eval Program helps to prevent the purchase of any coal with an evaluated historical (the latest six-month period) level that could result in a violation.

The purchasing agents consider at least three factors when they agree to the spot coal bids: (a) the price per ton (including freight), (b) the BTU, ash, moisture, volatiles, grindability, ash softening temperature, and sulfur content of the coal offered and (c) the past experience with the supplier and the coal obtained from the producer. The Company's purchasing agents determine the current market price for spot coal prior to negotiating with the coal vendors over their bids. In this way, the agents determine the limits they should stay within when bargaining for coal. The agents bargain over the price of the coal, and either accept (the offer given or a counter-offer) or reject the coal vendor's offer.

Upon acceptance of a bid, the Fossil Fuel Department prepares a purchase order, which has been checked against a final approved Coal Eval Program selections list. The original and the first copy

of the purchase order are mailed to the coal vendor. When the coal is received at the plant, the Company analyzes the coal for BTU, ash, moisture and sulfur content, and periodically analyzes coal for volatiles, grindability, and ash softening temperature, and then enters the coal analysis information into the computer (Fuel Management System) which is used by the Fossil Fuel Department. The appropriate premium or penalty on the coal purchase is determined by the Fossil Fuel Department through the Fuel Management System which adds a premium or assesses a penalty to the total amount due to the coal vendor, and the results are forwarded to the Company's Accounting Department. The Fossil Fuel Department closely monitors the quality of coal shipped by various producers. If poor performance is rendered by a certain producer, the purchasing agent considers this when analyzing any future offers received from the supplier.

The Company's spot coal requirements are obtained through short-term commitments and/or through recommended monthly spot coal purchases. The short-term commitments consist of periods of three months, three months with a mutual three-month extension, and/or six months. The recommended monthly basis was the spot coal purchasing time frame used by the Company prior to August 1989. During the period July 1995 through December 1995, CP&L ("the Company") obtained its spot coal requirements through recommended monthly spot coal purchases.

During the period July 1995 through December 1995, the Company, after a review of its inventory needs, determined that

approximately 1,060,000 tons of spot coal would be required. The actual amount of spot coal received for this period is reflected in Staff's Exhibit A.

The Accounting Department Staff's exhibits relative to this proceeding are identified as follows:

Exhibit A: COAL COST STATISTICS (AND WEIGHTED AVERAGE OF COAL RECEIVED)

In Exhibit A, Coal Cost Statistics, Staff compares spot and contract coal received for the period July 1995 through December 1995. The comparison is made in five (5) areas as follows:

- (1) Tons Received
- (2) Percentage of Total Tons Received
- (3) Received Cost Per Ton
- (4) Total Received Cost
- (5) Cost Per MBTU

This exhibit also reflects the total spot and contract tons received during the period July 1995 through December 1995. Staff has taken the total received cost for the six (6) months and divided this by the total tons for the six (6) months in arriving at a Weighted Average Cost per ton for the six (6)- month period.

Exhibit B: RECEIVED COAL-COST PER TON (PER PLANT)

This exhibit reflects the received cost per ton by month for each of Carolina Power and Light Company's plants.

Exhibit C: RECEIVED COAL-COST PER TON COMPARISON

In Exhibit C, Received Coal-Cost Per Ton, Staff has made a comparison of received coal-cost per ton for Carolina Power & Light

Company, Duke Power Company and South Carolina Electric & Gas Company. The costs per ton reflected for the coal purchases were extracted from required filings by all three major electric utilities.

Exhibit D: COAL FUEL STOCKS--NUMBER OF DAYS OF SUPPLY (ALL PLANTS)

This exhibit reflects Carolina Power and Light Company's coal inventory in terms of tons received, consumed, and on hand at the end of the month. The number of days of supply is also shown.

Exhibit E: TOTAL BURNED COST (FOSSIL AND NUCLEAR)

This exhibit shows fuel costs burned by type during the period July 1995 through December 1995.

Exhibit F: COST OF FUEL

In Exhibit F, Staff has computed the total fuel cost applicable to the factor computation. There are three (3) components used in arriving at this cost. These components are as follows:

- (1) Cost of Fuel Burned
- (2) Purchase and Interchange Power Cost
- (3) Authorized Adjustments

Cost of Fuel Burned - This amount is the burned cost of all fossil and nuclear fuel during the period. A detail breakdown of coal, oil, gas and nuclear fuel can be seen in Exhibit E.

Purchase and Interchange Power Fuel Cost - This amount is the monthly kilowatt hours delivered to or received by one electric utility from another electric utility.

Authorized Adjustments - These are amounts decreasing the

total fuel cost as authorized by regulatory agencies.

Total fuel cost applicable to the factor is computed by adding cost of fuel burned to purchase and interchange power and authorized adjustments.

Exhibit G: S.C. FUEL COSTS COMPUTATION

Shown in this exhibit are the actual costs for July 1995 through December 1995 and the estimated fuel costs for January, February and March 1996.

Based on the Accounting Staff's examination of Carolina Power & Light Company's books and records, a comparison of fuel costs among utilities and the utilization of the fuel costs recovery mechanism as directed by the Commission, the Accounting Staff is of the opinion that the Company has complied with the directives of the Commission.